JOURNAL OF ELECTROANALYTICAL CHEMISTRY AND INTERFACIAL ELECTROCHEMISTRY

Vol. 294 Nos. 1 and 2 9 November 1990

CONTENTS

The EC-catalytic mechanism at the rotating disk electrode. Part II. Comparison of approximate theories for the second-order case and application to the reaction of bipyridinium cation radicals with dioxygen in non-aqueous solutions
J.E. Nolan and J.A. Plambeck (Edmonton, Canada) 1

Theory of analytical spectroelectrochemistry. Anodic stripping analysis
Y. Xie and S. Dong (Changchun, People's Republic of China) 21

Morphology of the passive layer formed on a lithium anode. Part I. A simple theoretical approach
J.P. Badiali and C. François-Rigo (Paris, France) 33

Evolutionary spectral factor analysis of doping–undoping processes of thin conductive polymer films
J. Kankare, J. Lukkari, T. Pajunen, J. Abonen (Turku, Finland) and Cs. Visy (Szeged, Hungary) 59

Simultaneous ellipsometric and microgravimetric measurements during the electrochemical growth of polyaniline
J. Rishpon, A. Redondo, C. Derouin and S. Gottesfeld (Los Alamos, NM, U.S.A.) 73

Steric effects in electrode processes. Discharge process of the lead citrate complex on a mercury electrode covered by monolayers of aliphatic alcohols
E. Muszalska, W. Górski and Z. Galus (Warsaw, Poland) 87

Electrochemical oxidation of adsorbed carbon monoxide on platinum spherical single crystals. Effect of anion adsorption
A.M. de Becdelièvre, J. de Becdelièvre (Villeurbanne, France) and J. Clavilier (Meudon, France) 97

Photocorrosion of n-Si in ammonium fluoride solutions: an investigation by in-situ Fourier transform infrared spectroscopy
L.M. Peter (Southampton, Great Britain), D.J. Blackwood and S. Pons (Salt Lake City, UT, U.S.A.) 111

Kinetics of hydrogen evolution on nickel electrodes
A. Lasia and A. Rami (Sherbrooke, Canada) 123

A contribution to the study of the inhibited electroreduction of organic compounds in anhydrous solvents at high electrode coverages by neutral surfactants. The reduction of azobenzene in methanol as a model reaction
A. Anastopoulos and I. Moumtzis (Thessaloniki, Greece) 143

Characterization of iron tetrakis(*N*-methyl-2-pyridyl)porphine in aqueous media: electrochemical generation of stable iron(I), iron(II), iron(III) and iron(IV) porphyrins at room temperature
S.-M. Chen, P.-J. Sun and Y.O. Su (Taipei, Republic of China) 151

Transfer of transition metal–terpyridine complexes across the water/nitrobenzene interface
H. Alemu, B. Hundhammer and T. Solomon (Addis Ababa, Ethiopia) 165

Electrochemical behaviour of the Schiff base from pyridoxal-5′-phosphate and L-alanine
T. Pineda, M. Blázquez (Córdoba, Spain), M. Dominguez (Seville, Spain) and F. García-Blanco (Madrid, Spain) 179

Electrochemical behaviour of the Pt(111)-As system in acidic medium: adsorbed hydrogen and hydrogen reaction
J. Clavilier (Meudon, France), J.M. Feliu, A. Fernandez-Vega and A. Aldaz (Alicante, Spain) .. 193

Influence of the nature of the support on the temperature behaviour of "all-solid-state" PVC membrane nitrate ISEs
M.T.S.D. Vasconcelos and A.A.S.C. Machado (Porto, Portugal) 209

Electrochemistry of mixed-metal interfaces. Chemisorption and electrochemical reactivity of thiophenols at $Au_{90}Pt_{10}$ electrodes
G.J. Cali, B.G. Bravo and M.P. Soriaga (College Station, TX, U.S.A.) 225

(*continued on p. 3 of cover*)

Contents (*continued*)

The temperature coefficient of the potential of zero charge of the gold single-crystal electrode/aqueous solution interface. Possible relevance to gold–water interactions
F. Silva, M.J. Sottomayor (Porto, Portugal) and A. Hamelin (Meudon, France) 239

Adsorption of β-cyclodextrin at the polycrystalline gold electrode–aqueous solution interface
G. Jarząbek (Warsaw, Poland) 253

Radiotracer study of adsorption of HSO_4^- ions induced by Cd^{2+} adatoms at a smooth polycrystalline platinum electrode
G. Horanyi and A. Wieckowski (Urbana, IL, U.S.A.) 267

A phenomenological study of the Fleischmann–Pons effect
D. Lewis and K. Sköld (Nyköping, Sweden) 275

Short communications

Square root law for the diffusion current at a microelectrode
X. Liu, J. Lu and C. Cha (Wuhan, People's Republic of China) 289

Electrochemical studies of 2-hydroxy-3-(3,4-dimethyl-9-oxo-9H-thioxanthen-2-yloxy)*N*,*N*,*N*,-trimethyl-1-propanium chloride
W.J. Kinart, R. Skowroński, L. Turała, W. Dawid, J. Omąkowska and C.M. Kinart (Łódź, Poland) 293

Preliminary note

Electrochemical reduction of carbon dioxide to higher hydrocarbons in a $KHCO_3$ aqueous solution
M. Azuma (Osaka, Japan), K. Hashimoto (Tokyo, Japan), M. Watanabe (Kofu, Japan) and T. Sakata (Yokohama, Japan) 299

Author index 305

Subject index 306

JOURNAL OF ELECTROANALYTICAL CHEMISTRY AND INTERFACIAL ELECTROCHEMISTRY and BIOELECTROCHEMISTRY AND BIOENERGETICS

Publication schedule for 1990 (please note that Vol. 297, belonging to the 1990 subscription, will appear in 1991)

Month	J	F	M	A	M	J	J	A	S	O	N	D
J. Electroanal. Chem.	277/1+2 278/1+2	279/1+2 280/1	280/2 281/1+2	282/1+2 283/1+2	284/1 284/2	285/1+2 286/1+2	287/1 287/2	288/1+2 289/1+2	290/1+2 291/1+2	292/1+2 293/1+2	294/1+2 295/1+2	296/1 296/2
Bioelectrochem. Bioenerg.		298/1 (23/1)		298/2 (23/2)		298/3 (23/3)		299/1 (24/1)		299/2 (24/2)		299/3 (24/3)